

AWARENESS OF PARENTS ABOUT DENTAL DISEASES AND THEIR PREVENTION IN CHILDREN

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ABSTRACT

The objective of the present study was to determine the level of awareness of parents about dental diseases and their prevention in children. The subjects included 214 parents of the children attending Paedodontics Department, Khyber College of Dentistry, Peshawar for treatment. A questionnaire designed for self-administration was used to collect data so as to evaluate the effects of gender, age and level of education of parents on their awareness. The results showed that more than half of the parents (55 %) correctly identified the most important cause of dental caries but only one-fourth (26 %) of them were able to identify the most important way to prevent it. Fifty-nine percent (59 %) of the participating parents were able to correctly identify the most important cause of gum diseases while 65 % know the most important way of their prevention. Nearly two-third of the parents (63 %) replied that children should be taken to the dentist regularly for check up even if they don't complain of any problem. Majority of the parents (82 %) showed no knowledge of fluoride. Female parents showed more awareness as compared to their male counterparts. Age and level of education of parents had no effect on the level of awareness except for the knowledge of fluoride, which increased, with increasing level of education. It was concluded that the awareness of parents about dental diseases and their prevention in children was not satisfactory and needs to be improved through various measures.

Key words: Awareness, Dental Caries, Gum Diseases, Prevention, Fluoride.

INTRODUCTION

The most common dental diseases in children are dental caries and periodontal diseases and the most important etiological factors in the pathogenesis of these diseases are frequent intake of sugar and lack of oral hygiene. Therefore, most dental health education efforts are concentrating on informing and motivating parents and children to restrict frequent intake of sugar, brushing their teeth with fluoride toothpaste and to have regular visits to dentist. The prevention and management of dental health conditions, by and large, requires considerable self-knowledge and intervention.¹

Parents are role models for their children. They can play an important role in developing healthy

oral habits in children.²⁻⁴ However, parents will be able to instill healthy preventive oral habits in their children provided they themselves have a good knowledge of dental diseases and their prevention.⁵

There have been several studies in the world on oral health knowledge of parents⁵⁻⁹ but the same information is scarcely available in Pakistan especially in Peshawar. We, at the department of Paedodontics, Khyber College of Dentistry, Peshawar are constantly engaged in educating parents of the child patients but so far we don't know their level of awareness. The aim of this study was therefore to provide data on level of awareness of parents about dental diseases and their prevention in children in Peshawar.

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SUBJECTS AND METHODS

Subjects included 214 parents (male and female) of children attending Paedodontics department, Khyber College of Dentistry, Peshawar for treatment. Parents having language problems were not included. A questionnaire developed for self-administration was given

to parents to respond. In case the parent was uneducated, he/she was explained the questions in the questionnaire and their reply noted. Confidentiality was maintained. The data were analyzed and the results presented in tables.

RESULTS

Two hundred and fourteen parents participated in this study. Out of 214 parents 194 (90.7 %) were male and only 20 (9.3 %) were female. Majority of the parents belonged to the young (55.1 %) and middle (43.0 %) age groups. Only 4 (1.9 %) of the participating parents were of old age. Out of 214 parents 60 (28 %) were illiterate and 70 (32.7 %) had up to secondary and higher secondary education. Parents having graduate and postgraduate qualifications were 46 (21.5 %) and 38 (17.8 %) respectively (Table-1).

Response of Participating Parents by Gender

Sixty percent of the female parents correctly identified the most important cause of dental caries in children as compared to male parents (54.6 %). Simi-

TABLE 1: DEMOGRAPHIC DATA OF PARTICIPATING PARENTS

Factor		Number	%age
Gender	Male	194	90.7
	Female	20	9.3
Age	18-35 Years	118	55.1
	36-55 Years	92	43.0
	56-70 Years	4	1.9
Education	Illiterate	60	28.0
	Up to secondary & higher secondary	70	32.7
	Graduate	46	21.5
	Postgraduate	38	17.8

TABLE 2: RESPONSE OF PARTICIPATING PARENTS BY GENDER

Questions	Response	Gender		Total
		Male	Female	
The most important cause of dental caries	Lack of oral hygiene	56 (28.9%)	6 (30.0%)	62 (29.0%)
	Taking sweets frequently	106 (54.6%)	12 (60.0%)	118 (55.1%)
	Familial	8 (4.1%)	2 (10.0%)	10 (4.7%)
	Don't know	24 (12.4%)	0 (0.0%)	24 (11.2%)
The most important way to prevent dental caries	Reduce frequency of intake of sugar	48 (24.7%)	8 (40.0%)	56 (26.2%)
	Brush teeth frequently	108 (55.7%)	10 (50.0%)	118 (55.1%)
	Attend dentist frequently	28 (14.4%)	0 (0.0%)	28 (13.1%)
	Don't know	10 (5.2%)	2 (10.0%)	12 (5.6%)
The most important cause of gum diseases	General weakness	34 (17.5%)	6 (30.0%)	40 (18.7%)
	Lack of oral hygiene	116 (59.8%)	10 (50.0%)	126 (58.9%)
	Familial	10 (5.2%)	2 (10.0%)	12 (5.6%)
	Don't know	34 (17.5%)	2 (10.0%)	36 (16.8%)
The most important way to prevent gum diseases	Brush teeth regularly	128 (66.0%)	12 (60.0%)	140 (65.4%)
	Take medicine	32 (16.5%)	2 (10.0%)	34 (15.9%)
	Take fibrous food	12 (6.2%)	6 (30.0%)	18 (8.4%)
	Don't know	22 (11.3%)	0 (0.0%)	22 (10.3%)
The child should be taken to the dentist regularly even if he/she don't complain of any problem	Yes	122 (62.9%)	14 (70.0%)	136 (63.6%)
	No	72 (37.1%)	6 (30.0%)	78 (36.4%)
Do you know about fluoride	Yes	34 (17.5%)	4 (20.0%)	38 (17.8%)
	No	160 (82.5%)	16 (80.0%)	176 (82.2%)

larly more female parents (40 %) were aware of the most important way to prevent dental caries as compared to male parents (24.7%). As far the most important cause of gum diseases and their prevention in children, male parents showed more awareness than their female counterparts. Majority of the parents (63 % male and 70 % female) were of the opinion that children should be taken to the dentist regularly for check-up even if they don't complain of any problem. A great majority (82.2 %) of the participating parents (82.5 % male and 80 % female) responded that they don't know about fluoride (Table-2).

Response of Participating Parents by Age

There was not much difference in young and middle age parents in correctly identifying the most important cause of dental caries and their prevention in children (54.4 % vs. 54.2 % and 28 % vs. 25 %

respectively). As far the most important cause of gum diseases in children, more middle age parents (64.6 %) recorded the correct answer as compared to the young parents (54.4%). To prevent the gum diseases, the most important way was identified almost equally by the two age groups. More middle age parents (66.7 %) were of the opinion that the child should be taken to the dentist regularly for check-up than the younger age parents (61.4 %). Similarly more middle age parents reported to know about fluoride than the young parents (Table-3)

Response of Participating Parents by Level of Education

There were mixed results and no particular trend followed. The level of education of the participating parents did not affect the level of awareness (table-4). However a definite trend was noticed about the knowl-

TABLE 3: RESPONSE OF PARTICIPATING PARENTS BY AGE

Questions	Response	Age of Parents (in Year)			Total
		18-35	36-55	56-70	
The most important cause of dental caries	Lack of oral hygiene	30 (26.3%)	32 (33.3%)	0 (0.0%)	62 (29.0%)
	Taking sweets frequently	62 (54.4%)	52 (54.2%)	4 (100.0%)	118 (55.1%)
	Familial	6 (5.3%)	4 (4.2%)	0 (0.0%)	10 (4.7%)
	Don't know	16 (14.0%)	8 (8.3%)	0 (0.0%)	24 (11.2%)
The most important way to prevent dental caries	Reduce frequency of intake of sugar	32 (28.1%)	24 (25.0%)	0 (0.0%)	56 (26.2%)
	Brush teeth frequently	56 (49.1%)	58 (60.4%)	4 (100.0%)	118 (55.1%)
	Attend dentist frequently	22 (19.3%)	6 (6.3%)	0 (0.0%)	28 (13.1%)
	Don't know	4 (3.5%)	8 (8.3%)	0 (0.0%)	12 (5.6%)
The most important cause of gum diseases	General weakness	22 (19.3%)	16 (16.7%)	2 (50.0%)	40 (18.7%)
	Lack of oral hygiene	62 (54.4%)	62 (64.6%)	2 (50.0%)	126 (58.9%)
	Familial	6 (5.3%)	6 (6.2%)	0 (0.0%)	12 (5.6%)
	Don't know	24 (21.0%)	12 (12.5%)	0 (0.0%)	36 (16.8%)
The most important way to prevent gum diseases	Brush teeth regularly	76 (66.7%)	62 (64.6%)	2 (50.0%)	140 (65.4%)
	Take medicine	18 (15.8%)	14 (14.6%)	2 (50.0%)	34 (15.9%)
	Take fibrous food	8 (7.0%)	10 (10.4%)	0 (0.0%)	18 (8.4%)
	Don't know	12 (10.5%)	10 (10.4%)	0 (0.0%)	22 (10.3%)
The child should be taken to the dentist regularly even if he/she don't complain of any problem	Yes	70 (61.4%)	64 (66.7%)	2 (50.0%)	136 (63.6%)
	No	44 (38.6%)	32 (33.3%)	2 (50.0%)	78 (36.4%)
Do you know about fluoride	Yes	18 (15.8%)	18 (18.8%)	2 (50.0%)	38 (17.8%)
	No	96 (84.2%)	78 (81.2%)	2 (50.0%)	176 (82.2%)

TABLE 4: RESPONSE OF PARTICIPATING PARENTS BY LEVEL OF EDUCATION

Questions	Response	Level of Education				Total
		Illiterate	Up to secondary and higher secondary	Graduate	Post-graduate	
The most important cause of dental caries	Lack of oral hygiene	20 (33.4%)	28 (40.0%)	6 (13.1%)	8 (21.0%)	62 (29.0%)
	Taking sweets frequently	36 (60.0%)	34 (48.6%)	22 (47.8%)	24 (63.2%)	116 (54.2%)
	Familial	2 (3.3%)	4 (5.7%)	4 (8.7%)	0 (0.0%)	10 (4.7%)
	Don't know	2 (3.3%)	4 (5.7%)	14 (30.4%)	6 (15.8%)	26 (12.1%)
The most important way to prevent dental caries	Reduce frequency of intake of sugar	18 (30.0%)	20 (28.6%)	8 (17.4%)	10 (26.3%)	56 (26.2%)
	Brush teeth frequently	34 (56.7%)	38 (54.3%)	28 (60.9%)	18 (47.4%)	118 (55.1%)
	Attend dentist frequently	6 (10.0%)	10 (14.3%)	6 (13.0%)	6 (15.8%)	28 (13.1%)
	Don't know	2 (3.3%)	2 (2.8%)	4 (8.7%)	4 (10.5%)	12 (5.6%)
The most important cause of gum diseases	General weakness	16 (26.7%)	14 (20.0%)	10 (21.8%)	0 (0.0%)	40 (18.7%)
	Lack of oral hygiene	36 (60.0%)	42 (60.0%)	24 (52.2%)	24 (63.2%)	126 (58.9%)
	Familial	2 (3.3%)	6 (8.6%)	2 (4.3%)	2 (5.3%)	12 (5.6%)
	Don't know	6 (10.0%)	8 (11.4%)	10 (21.7%)	12 (31.5%)	36 (16.8%)
The most important way to prevent gum diseases	Brush teeth regularly	36 (60.0%)	38 (54.3%)	40 (87.0%)	26 (68.4%)	140 (65.4%)
	Take medicine	14 (23.3%)	20 (28.5%)	0 (0.0%)	0 (0.0%)	34 (15.9%)
	Take fibrous food	6 (10.0%)	6 (8.6%)	4 (8.7%)	2 (5.3%)	18 (8.4%)
	Don't know	4 (6.7%)	6 (8.6%)	2 (4.3%)	10 (26.3%)	22 (10.3%)
The child should be taken to the dentist regularly even if he/she don't complain of any problem	Yes	36 (60.0%)	50 (71.4%)	26 (56.5%)	24 (63.2%)	136 (63.6%)
	No	24 (40.0%)	20 (28.6%)	20 (43.5%)	14 (36.8%)	78 (36.4%)
Do you know about fluoride	Yes	2 (3.3%)	8 (11.4%)	10 (21.7%)	18 (47.4%)	38 (17.8%)
	No	58 (96.7%)	62 (88.6%)	36 (78.3%)	20 (52.6%)	176 (82.2%)

edge of fluoride with increasing level of education. More parents having postgraduate qualifications reported to have knowledge of fluoride as compared to illiterate parents (47.4 % vs. 3.3 %).

DISCUSSION

This study was conducted to evaluate the level of awareness and the effect of gender, age and level of education on awareness of parents about dental dis-

eases (dental caries and periodontal disease) and their prevention in children. The study sample was dominated by male parents (90.7 %) with only a few female parents (9.3 %). The reason for this discrepancy was that majority of the female parents were reluctant to or did not want to participate in the study.

In this study more than half of the parents (55 %) know about the main cause of dental caries but only

one-fourth of them were able to identify the most important way to prevent it. A study by Hood et al.⁵ also showed that parents were well informed of the causes of caries but have less knowledge of preventive methods. More female parents correctly identified the most important cause and the most important way to prevent dental caries than the male parents. These results contradict the findings of the studies by Al-Shalan and Wyne et al. who reported insignificant differences between the two sexes.^{9,10} Similarly more mothers than the fathers of the attending children (70 % vs. 63 %) were of the opinion that children should be taken to the dentist regularly for check up even if they don't complain of any problem. But it is the observation of the author that in fact only rarely parents brings their children for routine check up. These findings are in agreement with those of earlier studies, which reported gross discrepancies between the knowledge and actual practice.^{8,9,11-13} Majority of the parents in this study (82 %) reported that they don't know about fluoride. These results are opposite to those of the study by Al-Shalan who reported 83 % of parents having knowledge of fluoride.¹⁰ This may be due to the lack of community education by dental profession in Pakistan.

In the present study, insignificant differences were noticed in correctly identifying the main cause and the most important way to prevent dental caries by different age groups of parents. These findings are in agreement with those of the earlier study by Al-Shalan¹⁰ and contradict the report by Kinnby et al. that suggested that age of the parent was an important social factor in pre-school children's dental health.¹⁴ However more middle age parents (64.6 %) correctly identified the main cause of gum diseases as compared to the young age group (54.4 %). Similarly more middle age parents were of the opinion of regular dental visits.

The findings of this study were confusing when the data were analyzed by level of education of the participating parents. No definite trend was noticed in responses of illiterate, educated and highly educated. These findings support the earlier studies by Chohan⁸ and Wyne et al.⁹ and contradict the reports suggesting significant differences according to the level of education.^{10,14,15} However, the knowledge of parents about fluoride increased with the increasing level of education.

The reason that there is no clear difference between the awareness of illiterate and educated parents is the pathetic standards of education in Pakistan. As mentioned earlier, the illiterate parents were explained the questions in the questionnaire and their reply noted by the person collecting the data. The educated parents were given the questionnaire and they filled it themselves. As the questionnaire was in English, there is high chance that they misread it and made mistakes. It is not only the imparting quality of the education that is pathetic; the contents of the textbooks are even more pathetic. There is not enough material on dental health education in the school textbooks. Only a few lines about dental health may be found in the textbooks and that too are not written correctly.

CONCLUSION AND RECOMMENDATIONS

It is concluded that the awareness of parents about dental diseases and their prevention is not satisfactory. It needs to be improved through:

- 1 The dental personnel should give proper dental health education to the parents when they attend hospitals with their children.
- 2 The school textbook boards need to be approached to include a properly written chapter on dental health education in textbooks of every grade.
- 3 The national electronic media may be asked to arrange programmes on dental health education. Experts should be called for the programmes, not the near and dear ones.

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